# A Short Note on the Impossibility of Raising in the Noun Phrase*

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## 1. Introduction

Chomsky (1970) pointed out that raising is blocked in the noun phrase, whereas it is possible in the sentence. The contrast is exemplified by the pair in (1):

(1) a. *John's appearance to be happy
b. John appears to be happy

In my 2010 work I attempted to establish that the gap between raising in the sentence and its nominal counterpart originates from the categorical status of a clausal complement inside the noun phrase. More specifically, so far as raising predicates form TPs instead of CPs, both (1a) and (1b) should contain TP complements. I argued that this is not allowed in the NP, because nouns only allow full-fledged extended projections in the sense of Grimshaw (2005) as their complements. Basing this study on this presumption, I shall attempt to develop my claim and thus contribute to the establishment of the parallelism between the sentence and the noun phrase.

## 2. The Categorical Status of Nominal Complements

The occurrence of the infinitival complement in (2a) might seem to pose a problem for the claim put forward by Hamamatsu (2010):

(2) a. John's decision to leave
b. John decided to leave

It might appear that the infinitival predicates in (2a/b) constitute

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TPs. If this were true, the noun in (2a) could not take the infinitival complement, resulting in ungrammaticality.

However, control predicates such as those in (2b) in fact involve CPs. This is shown by the fact that it allows coordination with a *that*-clause, as shown by (3):

(3) John expected [to write a novel] but [that it would be a critical disaster]

(Koster and May 1982: 133; brackets mine)

As I suggested in my 2010 paper, nouns derived from control verbs behave in the same manner. Observe the example in (4):

(4) people have an expectation [to be watched in public] and [that it is rarely used by the government]

(http:www. convinceme. net/battles/236/More-Cameras-in-Public-PlacesSafety-vs.html; brackets mine; accessed 7 November 2014)

Given that the *that*-clauses are CPs, the first conjunct in (4) should be a CP as well.

Furthermore, the appearance of *for* in (5) indicates the presence of a CP projection:

(5) Mary's refusal [for John to attend the party]

This in turn suggests the possibility that the nominal infinitival predicate in (2b) also forms a CP.

Moreover, the infinitival clausal complement such as the bracketed part in (6a) has been claimed to form a CP, in line with (6b) (Bresnan 1972; Chomsky 1981; Snyder and Rothstein 1992):

(6) a. John wants [Mary to leave]

b. John wants very much [$_{CP}$ for Mary to leave]

This assumption is further confirmed by the possibility of coordination in (7):

(7) John wants [to stay] and [for Mary to leave]

If we assume that nouns take only CPs as their clausal complements, they cannot select raising predicates, which, by assumption, form TPs. Given that control predicates are CPs, by contrast, nouns can select them as their complements. This contrast is exemplified by the pair in (8):

(8) a. decision [$_{CP}$ C [$_{TP}$ PRO to leave]]

b. *appearance [$_{TP}$ John to be happy]

On the basis of the above observation, Hamamatsu (2010) claimed that N must take full-fledged extended projections in the sense of Grimshaw (2005). This seems to be true of other varieties of nominal complements as well. First, as pointed out by Stowell (1981), nouns do not allow the omission of a complementiser *that* when they take clausal complements.[1] This is shown by the difference between (9a) and (9b):

(9) a. John's claim [$_{CP}$ that [$_{TP}$ Mary is innocent]]
b. *John's claim [$_{TP}$ Mary is innocent]

Consider next the gap between (10a) and (10b):

(10) a. examination [$_{PP}$ of [$_{DP}$ the patient]]
b. *examination [$_{DP}$ the patient]

Although *of* is semantically empty in (10a), its absence leads to the ungrammaticality in (10b). By assuming, in line with Grimshaw (ibid.), that P and D together constitute N's extended projections, the ungramaticality of (10b) will naturally follow from the lack of a PP, which is N's highest extended projection.

## 3. Raising and Control in the NP

One might wonder what prevents a noun from taking a CP as a complement, resulting in raising within the noun phrase. This is shown by the pair in (11):

(11) a. appearance [$_{CP}$ C [$_{TP}$ John to be happy]]
b. *[$_{DP}$ John D('s) [$_{NP}$ appearance [$_{CP}$ C [$_{TP}$ t to be happy]]]]

If we assume, following Hamamatsu (2010), that movement analysis of control, proposed by Hornstein (1998, 1999) and many subsequent works, is validated in the nominal control structure such as (2a), reproduced here as (12a), the example will have a derivation schematised in (12b):[2]

(12) a. John's decision to leave
b. [$_{DP}$ John D('s) [$_{NP}$ decision [$_{CP}$ C [$_{TP}$ t to leave]]]]

In (12b) *John* originates from the specifier of the embedded TP, moving to the matrix subject position. In (12b) *John* moves over a CP, which might be considered to trigger a minimality violation.

However, Nunes (2007, 2010) and Boeckx, et. al (2010) argue that movement crossing a CP is not blocked if the movement is motivated by checking of a θ-feature. Consider the contrast between (13a) and (14a), which have the structure in (13b) and (14b), respectively, at some point in their derivation:

(13) a. *John was decided to respond
b. [$_{TP}$ John T(was) [$_{VP}$ decided [$_{CP}$ C [$_{TP}$ t to respond]]]]

(14) a. John was persuaded to respond
b. [$_{TP}$ T(was) [$_{VP}$ John persuaded [$_{CP}$ C [$_{TP}$ t to respond]]]]

One of the major differences between (13b) and (14b) is that the matrix verb θ-marks the subject of the embedded TP in the latter, whereas it does not in the former. In (14b) *John* moves to have its θ-feature checked. In (13b), on the other hand, the trigger for the movement of *John* has to do with θ-features: the finite T and the embedded subject DP should agree in θ-features. According to Nunes, this agreement is blocked because of the intervention of C's θ-features.

Interestingly enough, raising in the noun phrase is blocked in the same way as (13a). Examine the derivation in (15):

(15) [$_{DP}$ John D('s) [$_{NP}$ appearance [$_{CP}$ C [$_{TP}$ t to be happy]]]]

In (15) C's θ-features prevent D and the embedded subject from agreeing in θ-features.

Nothing hampers raising in (16) since the clausal complement lacks C, which, if present, would prevent the θ-features of the matrix T and those of the embedded subject from agreeing with each other:

(16) John appears [TP t to be successful]

However, raising is not allowed in the noun phrase, as far as N cannot c-select a TP. If it took a CP complement, we would have the derivation in (17), contrary to fact:

(17) [$_{DP}$ John D('s) [$_{NP}$ appearance [$_{CP}$ C [$_{TP}$ t to be successful]]]]

This derivation is impossible for the same reason as (13b): D and the embedded subject should agree in θ-features in order for it to move to [Spec, DP]. The θ-features of the intervening C block this agreement.

Before concluding this section, let us note an apparent counterexample to the non-occurrence of raising in the NP, which is shown in (18):

(18) his tendency to break rules
(*The Guardian*; 22 September 2013; accessed 8 December 2014)

At first glance, this might be taken as the nominal counterpart of the raising in (19):

(19) John tends to break rules

However, there is reason to conjecture that the subject in (18), unlike that in (19), does not undergo raising. Instead, it is base-generated and given a possessive θ-role. This seems to be plausible if we consider the fact that we find a large number of occurrences such as (20):

(20) John has a tendency to be too deferential to the opinions of others
(*The Telegraph*; 19 September 2014; accessed 8 December 2014)

In (20) *John*, as the subject of the possessive *has*, is a possessor. This in turn makes plausible the presumption that in (18) *his* is also assigned a possessive θ-role. More specifically, we assume, following Anderson (1983) and Abney (1987), that the subject in (18) receives a possessive θ-role from the *'s* suffix.

By contrast, this does not save the impossibility of (1a), repeated here as (21a), because the subject of *appearance* cannot be a possessor, as indicated by (21b):

(21) a. *John's appearance to be happy
b. *John has an appearance to be happy.

All in all, the absence of raising within the noun phrase reduces to the impossibility of nouns to take TP complements. Therefore, it poses no problem for the movement analysis of control inside the noun phrase.

## 4. Conclusion

In this note I have argued that the impossibility of raising is accounted for by assuming that nouns can select the whole of an extended projection but not a part of them. This in turn means that

they can take a CP as their complement, but not a TP. Provided that nouns derived from raising verbs take a TP complement as their original verbs do, this will inevitably cause ungrammaticality.

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**Notes**

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tion on the notion of possession), to which I am grateful.

1) In fact, Stowell regards *that*-complements to nouns as appositives, instead of complements. Safir (1985), however, contends that some of them are complements.
2) Hornstein (2001) argues that clauses, whether they are finite or not, cannot be complements to nouns and that they are adjuncts. He further proposes that the subject DP in the infinitival clause undergo sidewards movements to the specifier of the upper DP. The status of clausal complements has been a matter of debate in the literature. I will not discuss this matter in this study. See Stowell (1981) and Safir (1985).